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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,027	03/31/2004	Boris Ginzburg	P-6388-US	3833
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PEARL COHEN ZEDEK LATZER, LLP 1500 BROADWAY, 12TH FLOOR NEW YORK, NY 10036			EXAMINER WU, JIANYE	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/813,027	Applicant(s) GINZBURG ET AL.	
	Examiner Jianye Wu	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 44-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 44-81 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓                              | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 44-58 and 62-81** are rejected under 35 U.S.C. 102(e) as being anticipated by Bing et al. (US, 20040131084 A1, hereinafter Bing).

As to **claim 44, 50, 53 and 56**, Bing discloses a method, a processor-readable storage medium, a wireless device and a processor for transmitting between a wireless device and a plurality of stations, comprising:

dividing a frequency bandwidth of a channel into a plurality of sub-channels (OFDM, [0020], line 11; by definition Orthogonal Frequency Division Multiplexing, OFDM dividing frequency bandwidth of a channel into sub channels);

allocating a sub-channel (subcarriers, [0020], line 12) from said plurality of sub-channels to each of the stations; transmitting said allocation of said sub-channel the station allocated thereto ([0020], line 10-17);

transmitting a multicast (multicast, [0043]) transmission to the stations;  
and

receiving an acknowledgement (ACK or NAK, [0045]) from a station over  
said sub-channel allocated thereto.

As to **claim 45, 51, 54 and 57**, Bing discloses the method, the processor-  
readable storage medium and the wireless device of claim 44, 50 and 53, further  
comprising: retransmitting said multicast transmission if an acknowledgment  
(ACKs, FIG. 9) of said multicast transmission is not received from all of the  
plurality of stations (transmitted again, [0046], line 3).

As to **claim 46, 52, 55 and 58**, Bing discloses the method, the processor-  
readable storage medium and the wireless device of claim 44, 50 and 53, further  
comprising:

assigning a group to at least one of the plurality of stations (a multicast is  
always associated with a group); and

transmitting said group assignment to said at least one of said plurality of  
stations (FIG. 7 and [0046]).

As to **claim 47**, Bing discloses the method of Claim 46, wherein said  
assignment is based on a received signal strength (transmission quality, [0046])  
of said at least one of the plurality of stations.

As to **claim 48**, Bing discloses the method of Claim 46, wherein said  
assignment is based on a dynamic range (distance and location of MTs to BS as  
shown in FIG. 8 and [0046]) of a receiver of said at least one of the plurality of  
stations.

As to **claim 49**, Bing discloses the method of Claim 46, wherein said transmitting of said multicast transmission is to all stations assigned to said group (The terminals MT1, MT2 and MT3 are in a group as shown in FIG. 8 and [0046]).

For **claims 62, 64, 66, 68 and 70**, Bing discloses a method, a processor-readable storage medium, a station and a processor for transmitting between a wireless device and a plurality of stations, comprising:

receiving an allocation of a sub-channel of a plurality of sub-channels from the wireless device, wherein said sub-channels are a frequency bandwidth division of a channel (OFDM, [0020]);

receiving a multicast transmission from the wireless device (multicast, [0043]); and

transmitting to the wireless device an acknowledgment over said sub-channel allocated to the station (ACKs, FIG. 9).

As to **claims 63, 65, 67, 69 and 71**, Bing discloses a method, a processor-readable storage medium, a station and a processor of claim 62, 64, 68 and 70, further comprising:

requesting membership in a group (MT 1,2,3, FIG. 9) comprising at least one station (MT 1,2,3, FIG. 9); and

transmitting said group membership request to the wireless device (FIG. 9).

For **claim 72 and 78**, they are a combination of claims 44 and 62, and 53 and 66, respectively, therefore are reject for the same reasons explained above.

As to **claim 73 and 79**, Bing discloses a method of claim 72 and a wireless device system of claim 78, respectively, wherein said transmitter of said wireless device is for retransmitting said multicast transmission if an acknowledgment of said multicast transmission is not received from all of said plurality of stations (transmitted again from the base station, [0037], particularly line 3).

As to **claim 74 and 80**, Bing discloses a method of claim 72 and a wireless device system of claim 78, wherein said wireless device further comprises an assignor (inherent from multicast group, FIG. 1) for assigning a group to at least one of said plurality of stations (MT2, MT2 and MT3, [0046], line 7-12), and wherein said transmitter is for transmitting said group assignment to said at least one of said plurality of stations.

As to **claim 75**, Bing discloses the method of claim 74, wherein said assignment is based on a received signal strength (transmission quality, [0046]) of said at least one of the plurality of stations.

As to **claim 76**, Bing discloses the method of claim 74, wherein said assignment is based on a dynamic range (distance and location of MTs to BS as shown in FIG. 8 and [0046]) of a receiver of said at least one of the plurality of stations.

As to **claim 77**, Bing discloses the method of Claim 74, wherein said transmitting of said multicast transmission by the wireless device is to all stations assigned to said group (multicast, [0037], last 2 lines).

As to **claim 81**, Bing discloses the wireless communication system of Claim 78, wherein said at least of said plurality of station further comprises a requestor for requesting membership in a group comprising at least one station (inherent from multicast group, FIG. 1); and wherein said transmitter is for transmitting said group membership request to said wireless device.

***Claim Rejections - 35 USC § 103***

3. The **following** is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. **Claims 59-61** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bing as applied to claim 20 above, and further in view of Kapoor et al (US 6795424, hereinafter Kapoor).

For **claim 59**, it is the wireless device of claim 53, further comprising a dipole antenna operably connected to said transmitter and said receiver. Bing discloses the wireless device of claim 53, but **is silent on** the dipole antenna.

In the same field of endeavor, Kapoor discloses a dipole antenna (Col. 17, line 34) connected to said transmitter and said receiver.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Bing by Kapoor to connect a dipole antenna to said transmitter and said receiver of the wireless device in order to reduce cost (Kapoor Col. 17, line 43).

As to **claim 60**, Bing and Kapoor disclose the wireless device of Claim 59, wherein said transmitter is for retransmitting said multicast transmission if an acknowledgment of said multicast transmission is not received from all of said plurality of stations ([0046]).

As to **claim 61**, Bing and Kapoor disclose the wireless device of Claim 59, further comprising:

an assignor for assigning a group to at least one of said plurality of stations, and wherein said transmitter is for transmitting said group assignment to said at least one of said plurality of stations (FIG. 8 and [0046]).

### ***Response to Amendments/Remarks***

5. Applicant's arguments and all other documents filed on 10/26/2007 have been fully considered. Claim 1-43 (all of the previous claims) have been canceled and new claims 44-81 have been added.

Newly added claims 44-81 are rejected as explained above.

6. All the arguments regarding to claim 1-43 are moot because the claims have been cancelled.

7. Applicant argues (page 11-12):



"New Claims 44, 50, 53, 56, 59, 72, and 78 include, inter alia, "dividing a frequency bandwidth of a channel into a plurality of sub-channels ... allocating a sub-channel from said plurality of sub-channels to each of the stations ... transmitting said allocation of" said sub-channel to each of the stations ... transmitting a multicast transmission to the stations ... receiving an acknowledgement from a station over said sub-channel allocated to said station".

New Claims 62, 64, 66, 68, 70, 72, and 78 include, inter alia, "receiving an allocation of a sub-channel of a plurality of sub-channels from the wireless device, wherein said sub-channels are a frequency bandwidth division of a channel ... receiving a multicast transmission from the wireless device ... transmitting to the wireless device an acknowledgment over said sub-channel allocated to the station."

In response Bing teaches OFDM ([0020]), which is well known and considered common knowledge in the art. By definition of Orthogonal Frequency Division Multiplexing, OFDM divides a frequency channel into a plurality of sub-channels, with orthogonal code to each station for both transmitting and receiving. Bing also teaches multicast and receiving an acknowledgement, particularly in FIG. 1-9 and [37] and [46]. Therefore, Bing reads on the new claims well.

8. Applicant request to withdraw the rejection of claims 4-8, 10-11, 17-19, 22-23, 27, 30-31, 33-39 and 43 under 35 U.S.C. 103(a) (page 13).

In response, the rejection is withdrawn because the claims have been cancelled.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jianye Wu whose telephone number is (571)270-1665. The examiner can normally be reached on Monday to Thursday, 8am to 7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571)272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jianye Wu

12/26/07



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